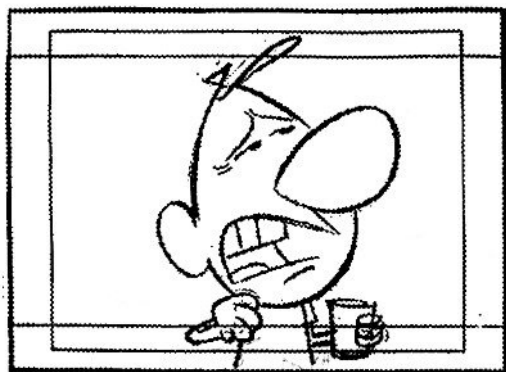


DRAWING THE CHARACTERS ON-MODEL...

OUR STORYBOARD ARTISTS WORK TO BRING THE CHARACTERS TO LIFE THROUGH GESTURE AND EXPRESSION, BUT WHEN DESIGNING OR ANIMATING THE CHARACTERS, IT IS IMPORTANT TO PUT THEM BACK ON-MODEL. THE NEXT FEW PAGES SHOULD HELP YOU UNDERSTAND WHAT "ON-MODEL" MEANS FOR *BILLY AND MANDY*.

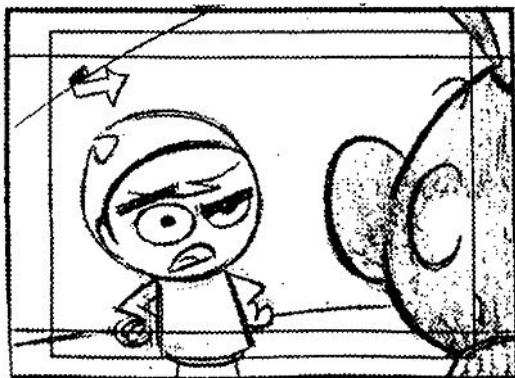


OFF-MODEL STORYBOARD PANEL

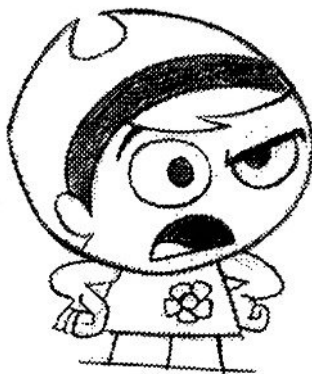


ON-MODEL DESIGN

THE BILLY ON THE LEFT WAS TAKEN FROM A STORYBOARD PANEL AND THE BILLY ON THE RIGHT IS A MODEL BASED ON THE STORYBOARD POSE. IN THE STORYBOARD PANEL, BILLY'S ARMS ARE TOO SKINNY, HIS PROPORTIONS ARE INCORRECT, AND HIS EYES ARE COMPLETELY OFF-MODEL. THE MODEL ON THE RIGHT WAS CREATED BY TRACING BILLY'S BASIC HEAD, NOSE, AND BODY SHAPES FROM THE MODEL PACK (THIS HELPS HIM MAINTAIN A CONSISTENT LOOK), AND THEN THE REST OF THE DRAWING WAS EXTRAPOLATED FROM THE STORYBOARD POSE. NOTE THAT BILLY'S SQUINTING EYES WERE DRAWN USING THE "EYE THEORIES" DESCRIBED LATER IN THIS PACK.

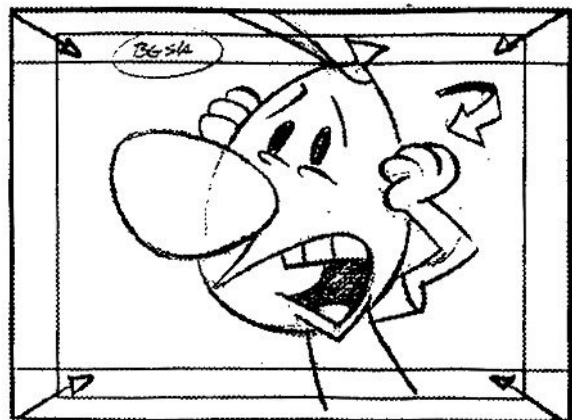


OFF-MODEL STORYBOARD PANEL

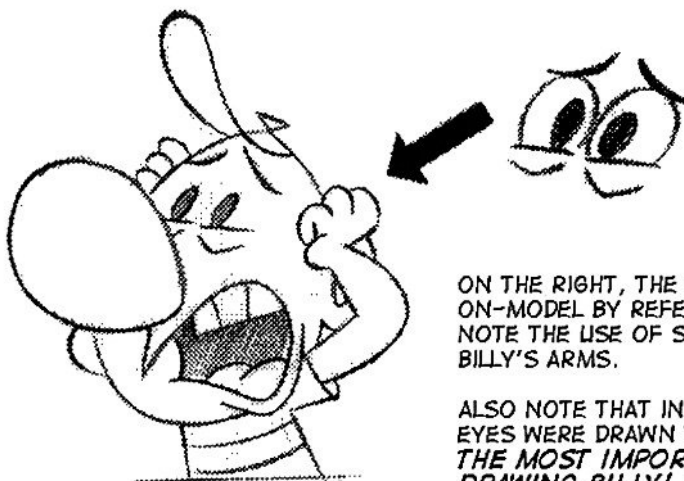


ON-MODEL DESIGN

HERE AGAIN ON THE LEFT WE HAVE A STORYBOARD PANEL DEPICTING MANDY ON THE LEFT, AND HER FINAL ON-MODEL POSE ON THE RIGHT. ON THE LEFT, MANDY'S EYEBROWS ARE DEPICTED AS BIG, UGLY BLACK BARS. HER BASIC SHAPES AND PROPORTIONS ARE ALSO INCORRECT. IN THE MODEL ON THE RIGHT, MANDY'S EYEBROWS TAPER LIKE THEY SHOULD AND HER SHAPES HAVE BEEN CORRECTED BY REFERRING TO HER MAIN 3/4 FRONT VIEW MODEL. MOST KEY POSES WILL BE BASED OFF OF THE MAIN MODEL (AND THE MAJORITY OF THOSE WILL BE BASED ON THE 3/4 FRONT VIEW), SO PLEASE REFER TO A CHARACTER'S MAIN MODEL WHEN DESIGNING OR DRAWING NEW POSES.



ORIGINAL STORYBOARD PANEL



ON-MODEL DESIGN

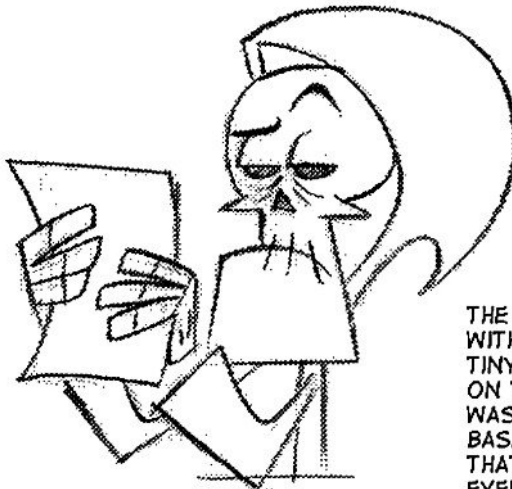
BILLY IS OFF-MODEL IN THE STORYBOARD PANEL ON THE LEFT. HIS ARMS ARE, AGAIN, TOO SKINNY AND HIS BASIC SHAPES AND PROPORTIONS ARE SLIGHTLY OFF.

ON THE RIGHT, THE CHARACTER HAS BEEN PUT BACK ON-MODEL BY REFERRING TO THE MAIN MODEL PACK. NOTE THE USE OF STRAIGHT -VS- CURVED LINES IN BILLY'S ARMS.

ALSO NOTE THAT IN THE "ROUGH" STAGE, BILLY'S EYES WERE DRAWN WITH WHITES. **THIS IS ONE OF THE MOST IMPORTANT THINGS TO REMEMBER WHEN DRAWING BILLY!** YOU SHOULD ALWAYS DRAW BILLY'S EYES WITH WHITES BEFORE YOU CLEAN HIM UP. IT ALLOWS YOU TO KNOW WHERE HIS EYEBROWS SHOULD GO AND CREATED MUCH MORE CONVINCING EXPRESSIONS.



ORIGINAL STORYBOARD PANEL



ON-MODEL DESIGN

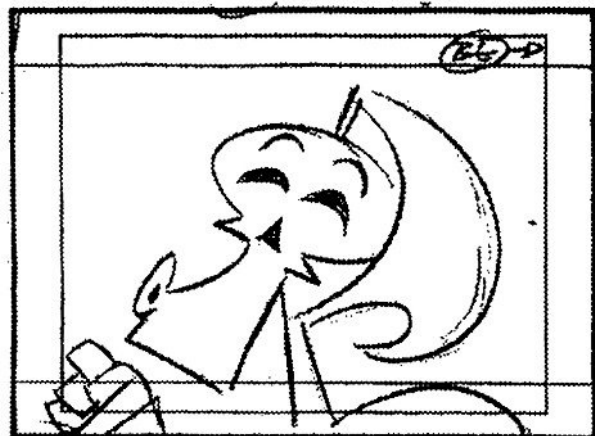
THE GEIM ON THE LEFT IS OBVIOUSLY OFF-MODEL, WITH HIS SKINNY ARMS, FAT ROUNDED FINGERS, TINY EYES, AND LACK OF HARD EDGES. THE GRIM ON THE RIGHT IS THE FINAL MODEL, WHICH AGAIN WAS TRACED FROM THE MAIN 3/4 MODEL TO GET HIS BASIC PROPORTIONS AND SHAPES CORRECT. NOTE THAT THE LINES INDICATING UPPER AND LOWER EYELIDS AND UNDEREYE BAGS ARE PRESENT IN BOTH DRAWINGS. ALL LINES SHOULD BOTH HAVE MEANING AND BE TRUE TO THE CHARACTER'S MODEL.



ON THE LEFT, MANDY'S HEAD IS TOO FLAT AND OVULAR. WHEN SHE IS ON-MODEL, MANDY'S HEAD IS ALMOST A CIRCLE (SEE THE IMAGE ON THE RIGHT) IF HER HEAD GETS TOO FLAT, IT DOESN'T LEAVE MUCH ROOM FOR HER EYEBROWS TO MOVE, SO PLEASE BE AWARE OF MANDY'S HEAD SHAPE.



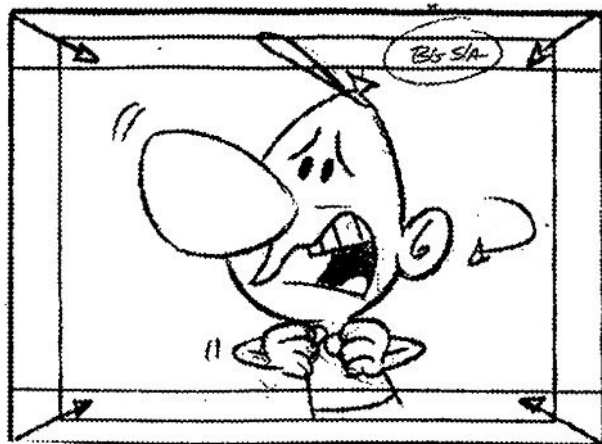
ADDITIONALLY, IN THE DRAWING ON THE LEFT, MANDY'S EYES ARE HALF-LIDDED BUT WE CANNOT SEE HER EYELIDS. WHENEVER MANDY'S EYES ARE HALF-LIDDED, WE SHOULD ALWAYS SEE HER EYELIDS.



HERE ARE A FEW MORE EXAMPLES OF STORYBOARD POSES TURNED INTO ON-MODEL DRAWINGS.

NOTE THAT YOU CAN EASILY TELL THAT THE WHITES WERE NEVER DRAWN INTO BILLY OR GRIM'S EYES WHEN THE STORYBOARD ARTIST WAS SKETCHING THESE POSES.

NOTE ALSO HOW THE SPACE ON THE CHARACTERS' FACES ARE USED. BILLY'S MOUTH OPENS TO FILL MOST OF HIS LOWER FACE AND IF YOU IMAGINE THAT BILLY'S EYES HAD WHITES, HIS EYES WOULD BE LARGE AND TAKE UP MUCH OF THE REAL ESTATE ABOVE HIS NOSE.



PLEASE ALWAYS USE LARGE, STRONG, BOLD SHAPES WHENEVER YOU'RE DRAWING FOR BILLY AND MANDY.

GRIM EXPRESSIONS:

GRIM LOOKING LEFT WITH HALF-LIDDED EYES. NOTE THE FAKED PERSPECTIVE ON THE LOWER JAW.

GRIM IN AN EXTREME POSE WITH HIS MOUTH WIDE OPEN. SOMETIMES EXPRESSIONS GET SO EXTREME THAT THE FEATURES WON'T ALL FIT ON THE FACE. IN CASES LIKE THESE, FEEL FREE TO PUSH EYEBROWS AND LOWER JAWS OUTSIDE OF THE CHARACTER'S HEAD SHAPES.

WE DON'T TRY TO DRAW TRUE PERSPECTIVE ON BILLY AND MANDY, BUT WE DO LIKE TO FAKE PERSPECTIVE. HERE IS A LOW ANGLE ON GRIM'S HEAD, SHOWING THE CURVATURE OF HIS LOWER JAW.

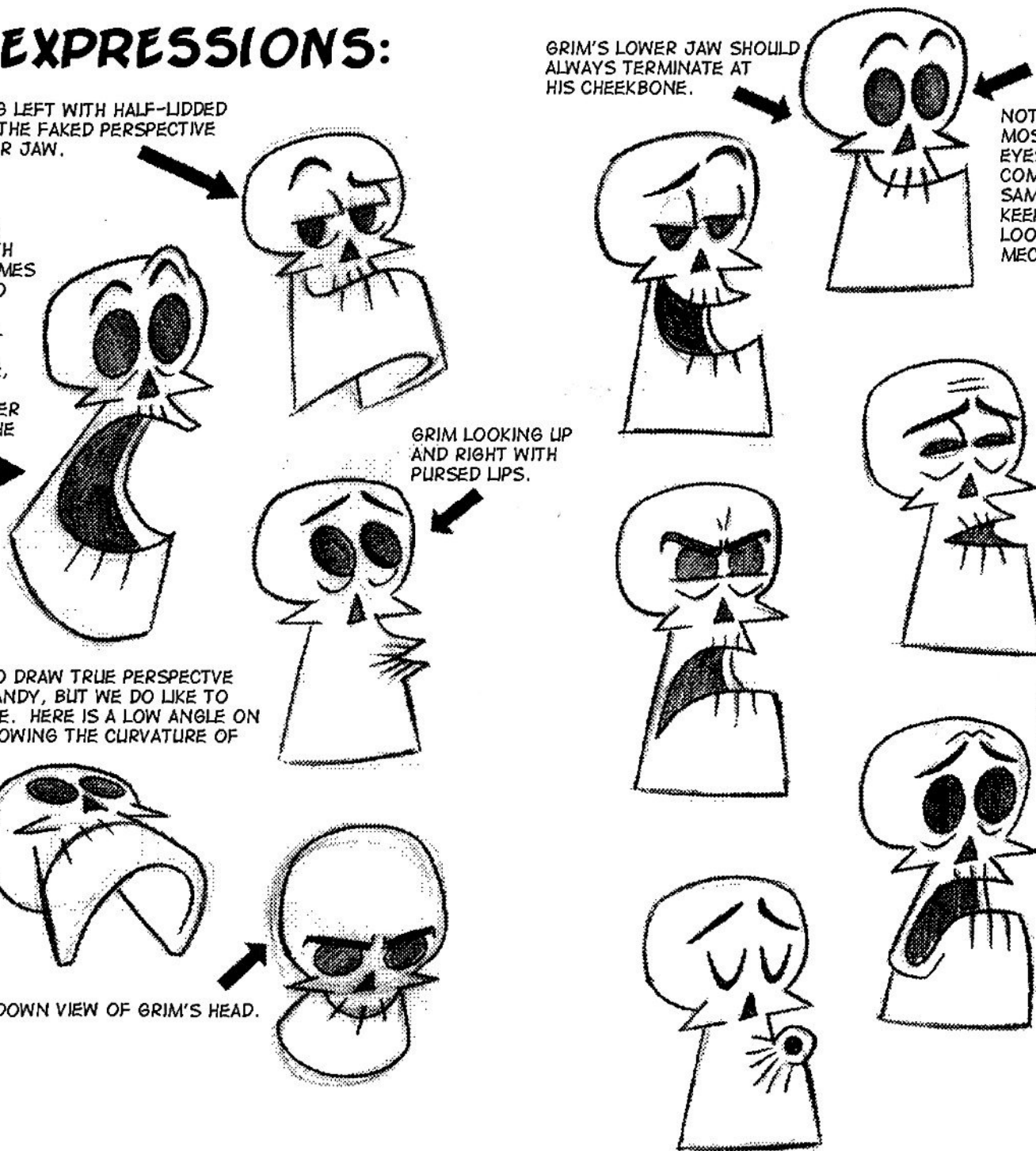
AND HERE IS A TOP-DOWN VIEW OF GRIM'S HEAD.

GRIM'S LOWER JAW SHOULD ALWAYS TERMINATE AT HIS CHEEKBONE.

NOTE THAT EVEN AT HIS MOST "NORMAL", GRIM'S EYES AND BROWS ARE NOT COMPLETELY LEVEL OR THE SAME SIZE. THIS HELPS KEEP CHARACTERS FROM LOOKING TOO STIFF OR MECHANICAL.

GRIM LOOKING UP AND RIGHT WITH PURSED LIPS.

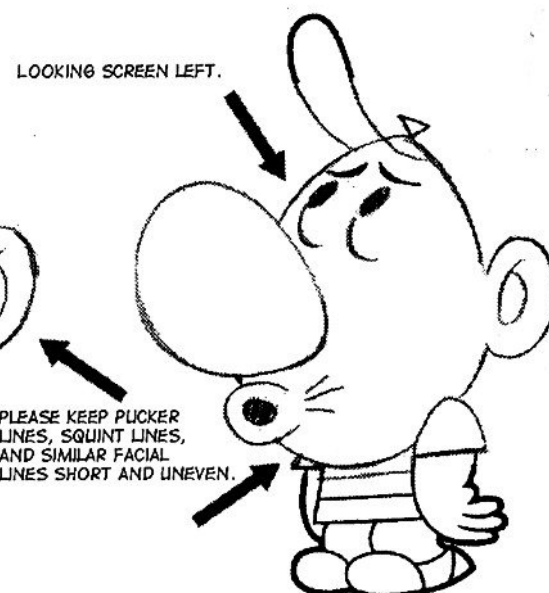
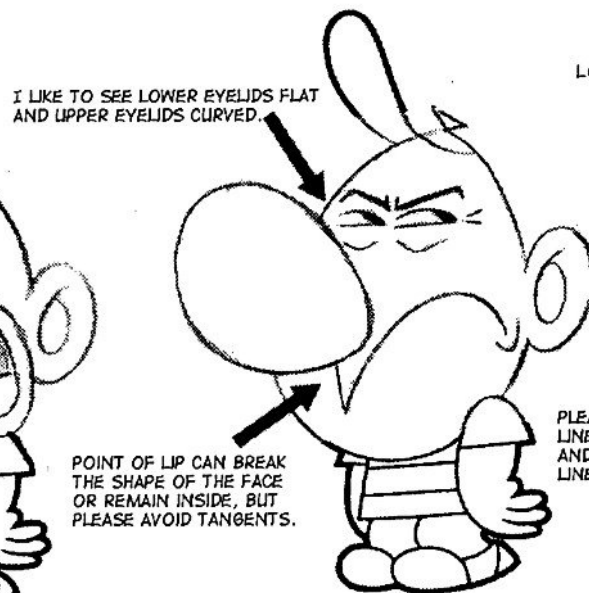
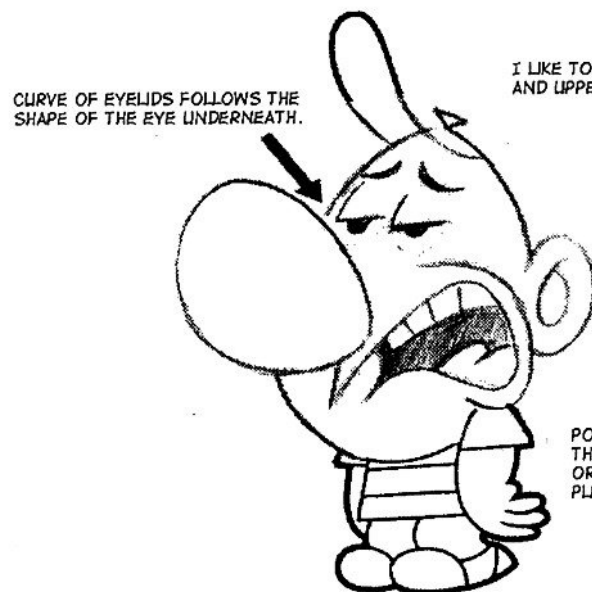
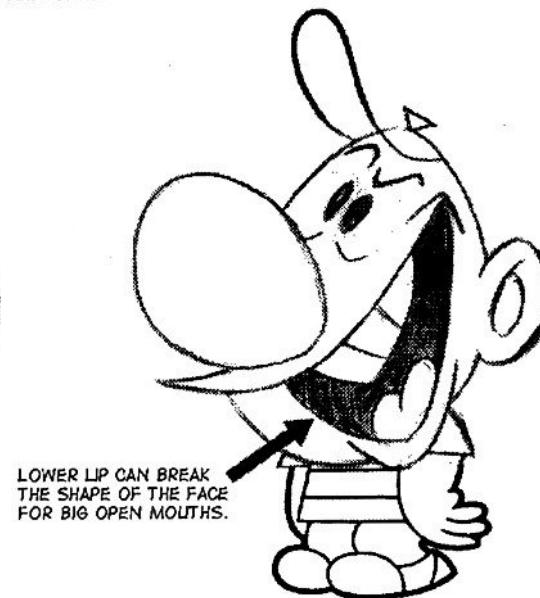
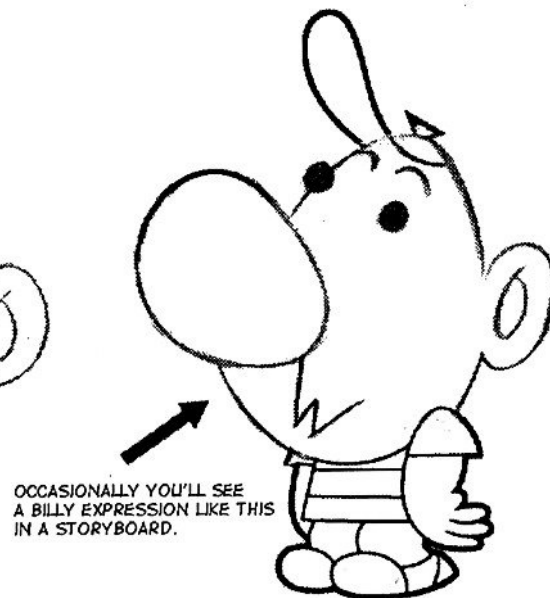
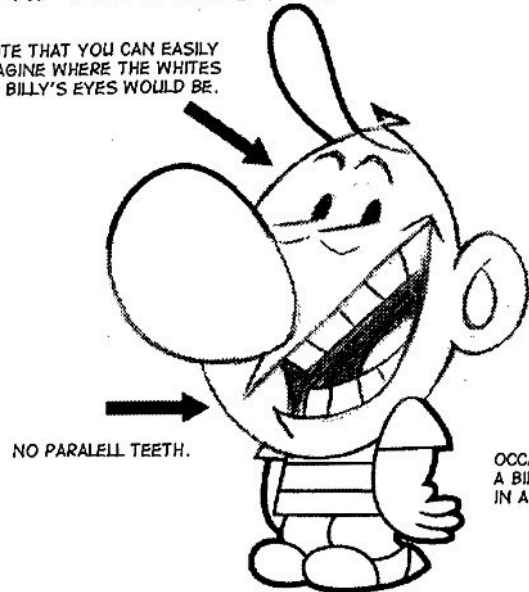
NOTE HOW, IN SOME POSES TO THE LEFT, GRIM'S BROW LINES REACT TO WHAT HIS EYEBROWS ARE DOING.



BILLY EXPRESSIONS

FEEL FREE TO USE THESE EXPRESSIONS OR COMBINE THEM TO MAKE NEW ONES.

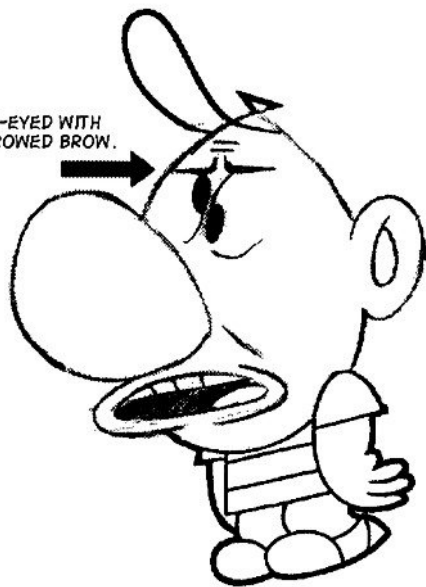
NOTE THAT YOU CAN EASILY
IMAGINE WHERE THE WHITES
OF BILLY'S EYES WOULD BE.



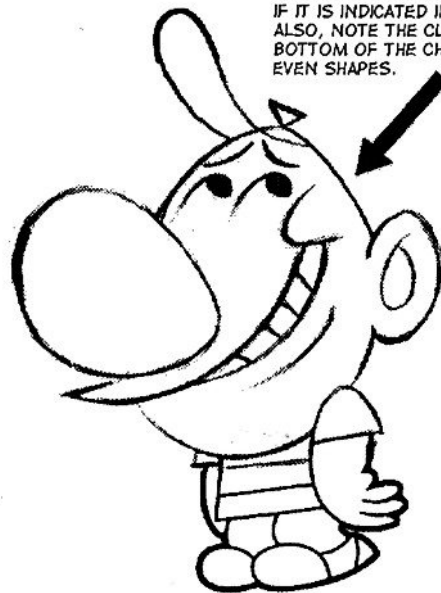
LOOKING SCREEN LEFT.

PLEASE KEEP PUCKER LINES, SQUINT LINES, AND SIMILAR FACIAL LINES SHORT AND UNEVEN.

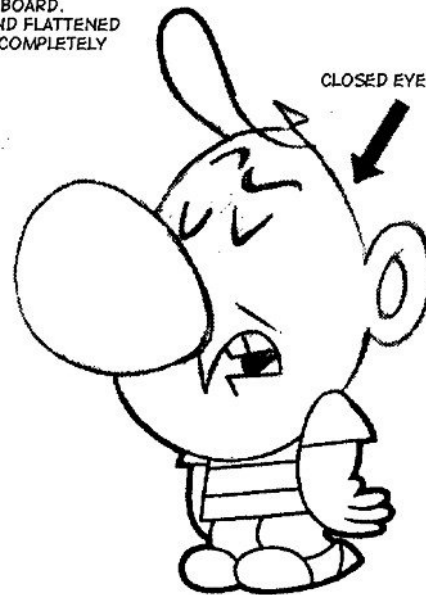
CROSS-EYED WITH
A FURROWED BROW.



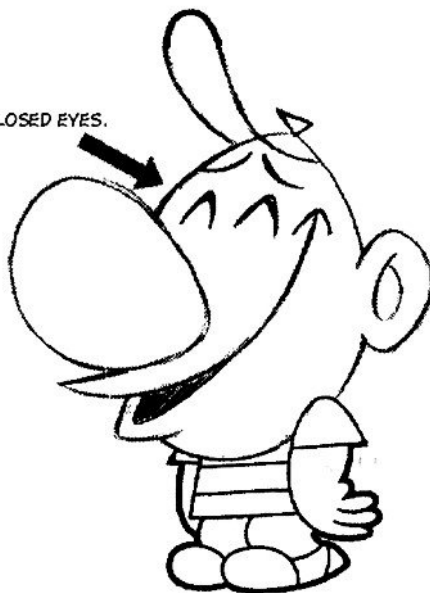
ONLY USE THIS SORT OF CHEEK
IF IT IS INDICATED IN THE STORYBOARD.
ALSO, NOTE THE CURVED TOP AND FLATTENED
BOTTOM OF THE CHEEK. AVOID COMPLETELY
EVEN SHAPES.



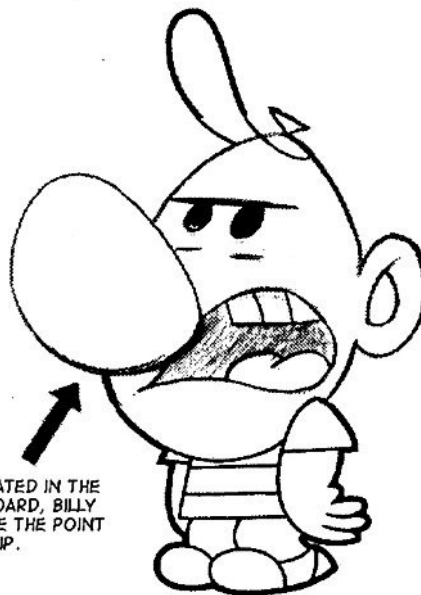
CLOSED EYES.



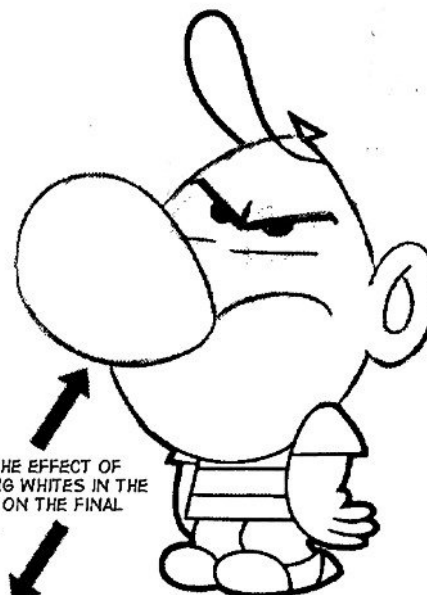
HAPPY CLOSED EYES.



IF INDICATED IN THE
STORYBOARD, BILLY
CAN LOSE THE POINT
ON HIS LIP.



NOTE THE EFFECT OF
DRAWING WHITES IN THE
ROUGH ON THE FINAL
MODEL.



BILLY AND MANDY "EYE THEORY" - PART 1

TYPICAL TAPERED BROWS AND UNDER-EYE BAGS. ONLY USE UNDER-EYE BAGS IF CALLED FOR IN THE STORYBOARD POSE.



NOTE THAT MOST OF THE TIME, EYES SHOULD BE IRREGULAR. EYES SHOULD USUALLY BE AT AN ANGLE, OF SLIGHTLY DIFFERENT SIZES, AND NEVER COMPLETELY LEVEL.



NOTE HOW THE POSITION OF THE BROW AFFECTS THE SHAPE OF THE EYE. WHEN BROWS ARE UP HIGH, THE EYE CAN STRETCH, BUT WHEN BROWS ARE LOW, THEY PRESS ON THE EYE AND SQUASH IT.



HERE ARE SOME BROW FURROW LINES. PLEASE KEEP THE FURROWS TO TWO OR THREE LINES MAXIMUM, AND MAKE SURE THEY'RE NOT PARALLEL.



NOTE THAT EYEBROWS ALWAYS TAPER AT BOTH ENDS. EVEN WHEN EYEBROWS ARE ANGRY, THE TIPS SHOULD TAPER. EYEBROWS SHOULD NEVER LOOK LIKE BIG BLACK RECTANGLES.

-EYEBROWS-



TYPICAL ARCHED BROW.

ANGRY BROWS.

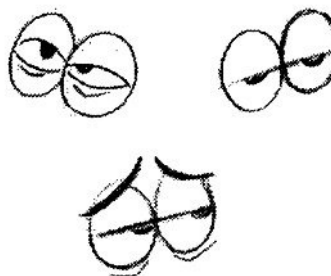


BOTH OF THE SETS OF EYES AT THE LEFT ARE ACCEPTABLE. YOU CAN FLATTEN THE PUPILS (AS IN THE RIGHT SET OF EYES) IF THE CHARACTER IS LOOKING HARD IN ONE DIRECTION, OR IF THE STORYBOARD CALLS FOR IT.

KEEP "SQUINT" LINES SHORT, AND AVOID MAKING THEM PARALLEL



TWO SETS OF CLOSED EYES, ONE WITH COLORED EYELIDS AND ONE WITHOUT.



EYELIDS CAN BE CURVED OR STRAIGHT, BUT THEY SHOULD NEVER CURVE UPWARD INTO THE EYE. THE EYELIDS SHOULD, IF THEY CURVE, HELP DEFINE THE SHAPE OF THE EYE UNDERNEATH.



HERE IS A PARTICULARLY SURLY LOOKING SET OF EYES. THIS IS ABOUT THE MAXIMUM AMOUNT OF WRINKLING I'D LIKE TO SEE IN ONE EXPRESSION.

NOTE THE GENERAL SHAPE OF THE UNDER-EYE BAG.

BILLY AND MANDY "EYE THOERY" - PART 2

BILLY AND GRIM BOTH HAVE "DOT" EYES, AND OCCASIONALLY OTHER CHARACTERS (LIKE BILLY'S DAD OR IRWIN WITHOUT HIS GLASSES) WILL HAVE "DOT" EYES AS WELL.

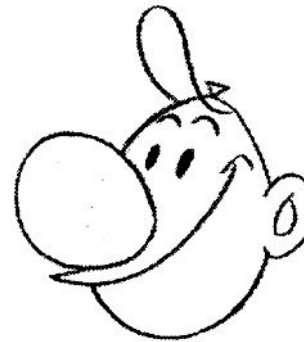
THE "DOT" EYE HAS NO WHITE, AND SOME WOULD SAY THIS MAKES IT MORE DIFFICULT TO DRAW. THE TRUTH IS, IT IS EXACTLY THE SAME AS ANY OTHER EYE ON THE SHOW. THE ONLY DIFFERENCE IS, YOU DON'T CLEAN-UP THE WHITE.

HOWEVER, IT IS IMPERATIVE THAT YOU DRAW THE WHITES OF THE EYES IN THE ROUGH STAGE, AS IT MAKES A BIG DIFFERENCE AS TO HOW THE CHARACTERS LOOK IN THE END.

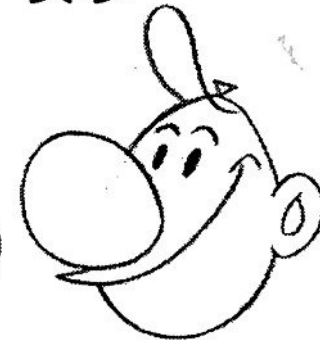
-DEALING WITH THE "DOT" EYE-



BILLY WITH WHITES DRAWN IN.



BILLY CLEANED UP WITHOUT WHITES.



BILLY WITH BROWS PLACED AND NO WHITES DRAWN IN. THIS IS UGLY AND SAD. PLEASE NEVER DO THIS.

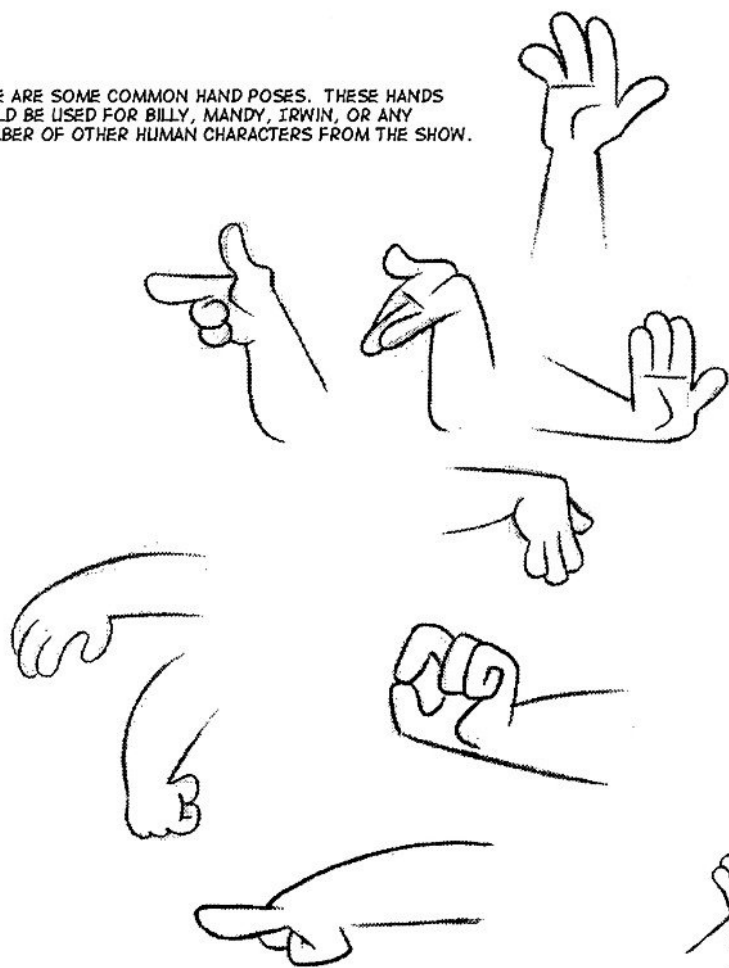
HERE ARE FOUR SETS OF "NORMAL" EYES THAT HAVE BEEN TURNED INTO "DOT" EYES BY REMOVING THE WHITES.



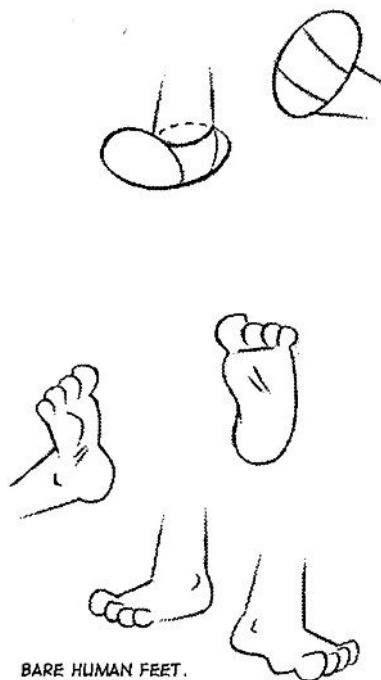
GRIM'S EYES ARE TREATED DIFFERENTLY THAN ANY OTHER CHARACTER ON THE SHOW. 90% OF THE TIME, GRIM'S EYES ARE JUST BIG BLACK OVALS WITH NO WHITES OR PUPILS. ONLY WHEN GRIM IS LOOKING TO THE SIDE WITH HIS EYES, AS IN THE DRAWINGS ABOVE, DOES HE GET WHITES TO HIS EYES.

HANDS AND FEET

HERE ARE SOME COMMON HAND POSES. THESE HANDS COULD BE USED FOR BILLY, MANDY, IRWIN, OR ANY NUMBER OF OTHER HUMAN CHARACTERS FROM THE SHOW.



I'D RATHER SEE THE BOTTOM OF BILLY'S FEET THAN A 3/4 BOTTOM.

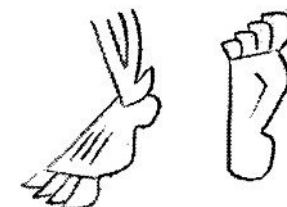
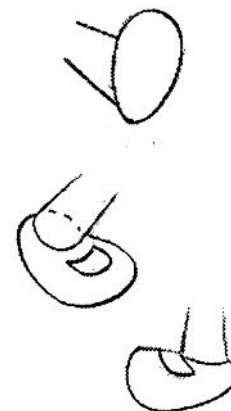


BARE HUMAN FEET.

THE TOP AND BOTTOM OF IRWIN'S SHOE.



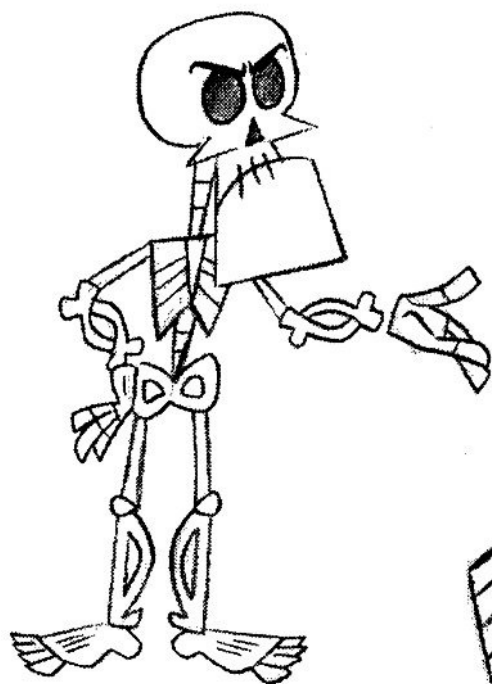
SEVERAL ANGLES OF MANDY'S SHOE.



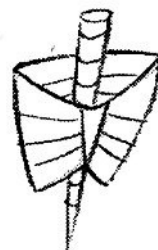
THE TOP AND BOTTOM OF GRIM'S FEET.

THE NAKED GRIM

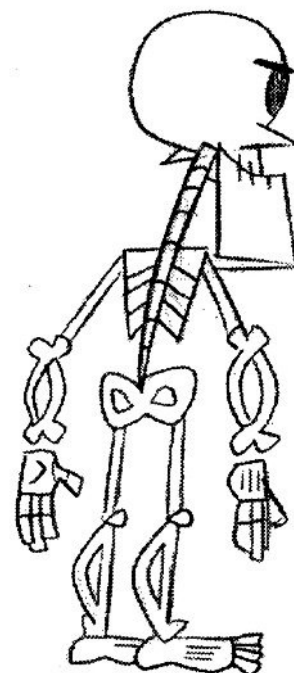
ONCE, LONG AGO, GRIM WAS NAKED IN THE MODEL PACK. SOMEHOW IN THE MOST RECENT VERSION, WE LOST THE NAKED GRIM, BUT NOW HE'S BACK AND MORE NAKED THAN EVER.



THE FOREARMS.

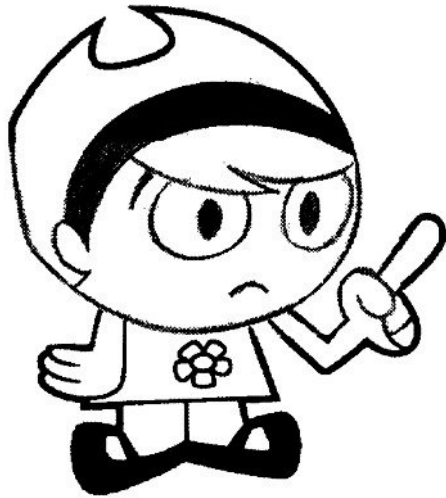


ANGLES ON THE RIBCAGE.



NOTE THAT FROM A 3/4 BACK VIEW, YOU CAN SEE OPEN SPACE THROUGH GRIM'S MOUTH.

MANDY EXPRESSIONS



EYES AND BROWS CAN PARTIALLY DISAPPEAR BEHIND HAIR WHEN NEEDED.



ONLY DRAW A CHEEK LIKE THIS IF IT IS CALLED FOR IN THE STORYBOARD OR EXPOSURE SHEETS.



EYELIDS SHOULD BE FLAT LINES OR LINES THAT REFLECT THE CURVATURE OF THE EYE.

